

**REMARKS**

At the outset it is noted that prior claims 235-271 are cancelled in favor of new claims 272-308. These claims substantially correspond to the prior claims 235-271 except for the fact that the independent claim 272 has been rewritten in order to render moot the prior 112 rejections.

The disclosure stands objected to based on an embedded hyperlink. This hyperlink is deleted herein. Withdrawal of the objection is respectfully requested.

Claims 235-271 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is respectfully traversed to the extent it may be applicable to the claims as amended herein.

The criticism of T1R1-associated taste is moot as this phrase has been deleted from the claims as amended. With further respect thereto the current claims now simply recite “human taste”. The as-filed application more than adequately describes the use of T1R1 in binding assays for identifying compounds that modulate human taste. Additionally, it should be noted that the T1R1 gene which is disclosed in the specification is indicated to be the human counterpart of a rodent gene that is known to be involved in taste transduction and to be a member of a small family of taste GPCRs (T1Rs) involved in taste transduction. (Hoon et al., Cell 96:541-551(2000)). Moreover, functional assays using this gene and the other T1R members have been demonstrated to be useful for identifying compounds that modulate human taste, e.g., umami and sweet taste. This is disclosed for example in later-filed US Serial No. 09/897,427, now allowed.

Additionally, the Office Action criticizes the recitation “putatively” and queries the intent. The intent which Applicants respectfully submit would be clear to a skilled artisan is that compounds which are identified in the claimed assays as binding T1R1 correspond to compounds that putatively, i.e., likely affect human taste which can be confirmed in a human taste test as recited e.g., in claim 271.

Additionally the Office Action indicates that the meaning of stringent hybridization conditions in prior claim 243. The criticism thereof is now moot in view of the current claims which define the stringency conditions based on the definition thereof in the specification at page 30.

Accordingly, Applicants respectfully request that the prior 112 second paragraph rejection of claims 235-271 not be maintained against new claims 272-308.

Claims 235-271 further were rejected under 35 USC 112 first paragraph as being non-enabled. This rejection is respectfully traversed to the extent it may be applicable to the claims pending herein.

First, the Office Action criticizes the recitation “human T1R1-associated taste” and urges that the meaning thereof is unclear from the as-filed specification. This rejection should be moot as the claims as amended now recite “human taste” in lieu of “T1R1- associated taste” . It would be clear from the as-filed specification that T1R1 is a human ortholog of a gene involved in taste transduction and that this gene and the corresponding polypeptide would be useful in binding assays for identifying compounds that putatively affect human taste. With respect thereto, the Examiner has acknowledged in the parent application that the as-filed specification adequately

enables that the T1R3 polypeptide and the gene that encodes same in involved in taste transduction in humans. Since T1R1 is part of the same family and is the human ortholog of a rodent gene previously reported to be involved in taste transduction it would be reasonably anticipated that this gene would be useful in taste ligand screening assays. In fact the role of T1R1 in human taste has been confirmed as disclosed in US Serial No. 09/897,427 filed on July 3, 2001 now patented.

Additionally, the Office Action indicated that the specification did not enable the use of fragments of T1R1 in assays. This basis of the rejection is now moot as the current claims do not claims assays using T1R1 fragments but rather are directed to assays using full length T1R1 polypeptides.

The Office Action further indicated that at best the specification only enables assays that use T1R1 polypeptides having at least 90% sequence identity to SEQ. ID NO:17. This basis of the prior enablement rejection is also moot as the current claims are limited to assays that use T1R1 polypeptides that have at least 90% sequence identity to SEQ ID NO:17 and which specifically bind at least one taste ligand also specifically bound by the native T1R1 polypeptide contained in SEQ ID NO:17.

Therefore, the previous 112 first paragraph enablement is rejection is believed to be overcome.

Claims 235-271 further were rejected based on 112 first paragraph as allegedly not meeting the written description requirement of 112 first paragraph. Based on the following, it is anticipated that this rejection should not be maintained against the current claims.

The Office Action also indicates that the specification does not adequately describe assays that use compounds that compete with a putative ligand for binding to the T1R1 polypeptide. This rejection is respectfully traversed to the extent it may be applicable to the claims as amended.

Applicants respectfully submit that one in possession of this application which teaches the role of T1Rs in human taste would be aware of potential ligands for the T1R1 polypeptide such as compounds that elicit umami or sweet taste and could use these ligands in screening assays to identify those which specifically bind T1R1 and modulate its activity and thereby modulate human taste associated with T1R1. Particularly, such potential ligands would be compounds that are known elicit sweet or umami taste such as artificial and natural savory and sweet tasting compounds. Using such ligands, and the assays disclosed in this application a skilled artisan would be placed in possession of suitable methods for identifying compounds which could be used in competitive binding assays in order to identify compounds that block or enhance the binding of such ligands to the T1R1 polypeptide.

The Office Action also indicates that previous claims 235-271 were rejected under double patenting grounds based on commonly assigned US Serial No. 10/724,223. This rejection is respectfully requested to be held in abeyance until this application is otherwise in condition for allowance.

It is anticipated that the present amendments and remarks should place the case in condition for allowance.

Based on the foregoing, a Notice to that effect is respectfully solicited. Reconsideration and allowance of all claims are respectfully requested. If any issues remain after consideration of this Amendment, Examiner Brannock is respectfully requested to contact the undersigned by telephone (202-419-2018) so that these issues can be resolved by Examiner's Amendment or a Supplemental Response.

Applicants believe that no fee is due with the filing of this Amendment. However, in the event that the calculations of the Office differ, Commissioner is hereby authorized to charge or credit any such variance or credit any overpayment to the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

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